

PMB 180

1115 Inman Avenue

Edison, NJ 08820-1132 Phone (732) 661-1660 Fax (732) 6

F-mail Regitant @aol com

N/att) co: Caspe / Action

Finazzo

September 29, 1999

Ms. Jeanne Fox Administrator, Region 2 290 Broadway, 26th Floor New York, NY 10007 Response due 10/21/99 Direct Reply

Dear Ms. Fox,

Please find enclosed the EWA Site Inspection report for the Cornell-Dubilier Superfund Site in South Plainfield, NJ. We believe that this site constitutes a public health hazard due to the fact that human beings and wildlife have been and continue to be exposed to levels of chemical contamination that has resulted in adverse health effects.

We believe that this site needs closer review and would appreciate any assistance you can give us in addressing the issues outlined in the site inspection.

Please contact my office if you need additional information or if you would like to discuss this report.

We value the good working relationship we have with the EPA and look forward to working with you to resolve these outstanding issues. Thank you in advance for your assistance.

Sincerely,

Robert Spiegel

Executive Director

694/M90

SS :2 119 2- 130 6661

MZ EPA

PMB 180 1115 Inman Avenue Edison, NJ 08820-1132 Phone (732) 661-9630 Fax (732) 661-9640 E-mail Raritan 1@aol.com

Site Inspection Report

Cornell Dubilier Superfund Site
333 Hamilton Boulevard
South Plainfield, NJ
Middlesex County

Inspection Date: September 9, 1999 Report Issued: September 30, 1999

Prepared by:

Robert Spiegel

Executive Director

Edison Wetlands Association

Dr. Norman Van Houten, Ph.D.

Senior Science Advisor

Edison Wetlands Association

Andrea Ace

Project Coordinator

Edison Wetlands Association

1115 Inman Avenue Edison, NJ 08820-1132 Phone (732) 661-1660 Fax (732) 661-9640 Email Rariton 1@aol com

October 5, 1999

Dear Sir or Madam,

Please find enclosed revisions to the Cornell Dubilier Site Inspection Report issued on September 30, 1999. The Edison Wetlands Association strives to provide timely and accurate information to the public regarding environmental issues that impact the quality of life for the residents of Central New Jersey. Due to the severity of the contamination at this site and its implications to the surrounding communities we expedited the release of the report. Over the weekend, however, we discovered that a few minor revisions were necessary.

Please make the following revisions to the September 9, 1999 Cornell Dubilier Site Inspection Report:

1. Page 3 of 6, fourth paragraph

Page 4 of 6, Section 3.0, Second Paragraph

Page 5 of 6, Section 5.0, Recommendation Number Five

Spicer Avenue, not Spice Avenue, is the name of the road that borders the Cornell Dubilier Site.

2. Page 4 of 6, Section 3.0, Fifth Paragraph, Line 8

"Mill Brook" should read "Bound Brook"

3. Attachment B-1, Picture in top right hand corner should read "South Plainfield", not "Plainfield".

Sincerely,

Robert Spiegel

Executive Director

1115 Inman Avenue Edison, NJ 08820-1132 Phone (732) 661-1660 Fax (732) 661-9640 E-mail Raritan (@aot.com

September 29, 1999

Mr. Peter Mannino Remedial Project Manager- Cornell Dublier Superfund Site US Environmental Protection Agency 290 Broadway, 19th Floor New York, NY 10007

Dear Mr. Mannino,

Please find enclosed the EWA Site Inspection report for the Cornell-Dubilier Superfund Site in South Plainfield, NJ. We believe that this site constitutes a public health hazard due to the fact that human beings and wildlife have been and continue to be exposed to levels of chemical contamination that has resulted in adverse health effects.

We believe that this site needs closer review and would appreciate any assistance you can give us in addressing the issues outlined in the site inspection. We are still awaiting the Off- Site Sampling Report as well as the Administrative Consent Order for the site stabilization that I had requested from you at our last meeting on September 9, 1999.

Please contact my office if you need additional information or if you would like to discuss this report.

Thank you in advance for your assistance.

Sincerely,

Robert Spiegel **Executive Director**

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 - 2.0- Purpose of Site Inspection
 - 3.0- Conduct of Site Inspection and Observations
 - 4.0- Conclusion
 - 5.0- Recommendations
 - 6.0- Distribution
- Map Attachments: A1, A2, A3 and A4 II.
- III. Photo Attachments: B1, B2 and B3 All photos were taken by Robert Spiegel of the Edison Wetlands Association on September 29, 1999.
- IV. Incident Report Attachments for PCB Dump in Dismal Swamp: C1 and C2
- **ATSDR ToxFAQ Information Summaries:** V.

Attachment D-1- PCB's

Attachment D-2- Lead

Attachment D-3- Cadmium

VI. List of Issues and Questions: Attachment E-1

1.0 Site Overview

During the 1950s, Cornell-Dubilier Electronics, Inc. manufactured electronic parts and components, and tested transformer oils. Discarded electronic components were landfilled on-site and transformer oils contaminated with PCBs were reportedly dumped directly onto site soils. The company vacated the site in the early 1960's.

The site is currently known as Hamilton Industrial Park and is occupied by an estimated 15 commercial businesses. Numerous companies have operated at the site as tenants over the years. A paved driveway is used to enter the park. The pavement ends within 100 yards of entering the park. It has been observed that vehicles entering the industrial park during dry conditions create airborne dust. The driveway leads into what was formally a dirt, gravel, and stone roadway that nearly encircles the business structures at the site. The roadway separates the structures from a heavily vegetated vacant field, and was paved by EPA in September of 1997 as part of the site stabilization process to mitigate migration of contaminated dust.

The vacant lot in the rear of the property was not addressed under this EPA action and has been found to contain PCB contamination as high as 550,000 Parts Per Billion (PPB) and Lead levels as high as 22,500 Parts Per Million (PPM). Cadmium contamination was found at levels as high as 152 PPM (see Attachments D-1, D-2 and D-3 for ATSDR ToxFAQ information and summaries on contaminants). Contamination from this site has been found in and around residential homes, in the Bound Brook, and in fish in the Bound Brook and surrounding lakes including New Market Pond.

The Cornell Dubilier Electronics Superfund Site is located at 333 Hamilton Boulevard in South Plainfield, Middlesex County, New Jersey (see Attachment A-1 for General Site map). The Cornell Dubilier Superfund Site is bound by Spice Avenue and Hamilton Boulevard. The 25-acre site is bordered by commercial businesses and residences on the South, West, North and Southeast sides and is bordered by the Bound Brook on the east and northeast sides. It is estimated that 540 persons reside within 0.25 miles of the site; the nearest residence is approximately 200 feet from the site.



- To determine the current presence and extent of hazardous materials on the site, including progress made in site cleanup.
- To review issues and concerns surrounding the Cornell Dubilier Superfund Site cleanup.

3.0 Conduct of the Site Inspection and Observations

Mr. Robert Spiegel [732-661-1660], Executive Director of the Edison Wetlands Association (EWA), requested the Cornell Dubilier Site Inspection for September 9, 1999. He conducted the inspection jointly with Mr. Peter Mannino of the U.S. Environmental Protection Agency (EPA) and Project Manager of the Cornell Dublier Superfund Site [(212) 637-4395].

On September 9, 1999, at 10 AM, Mr. Spiegel and Mr. Mannino met at the EPA trailer on Spice Avenue in South Plainfield, NJ. They entered the site via the front gate (which was unlocked).

Spiegel reviewed with Mannino a list of issues and questions that the EWA had prepared (see Attachment E-1). The Edison Wetlands Association is still awaiting the requested written response to the questions.

While walking through the site, Spiegel observed that no cleanup work had been done in the rear area of the site. Three on-site swales containing PCB's were clearly visible and drainage channels into the Bound Brook were evident (see Attachment A-2). Mannino stated that the EPA had ordered the responsible parties to stabilize the site in 1997; he stated that he was not aware that they had not complied.

Spiegel then requested that Mannino accompany him into an area in the Dismal Swamp that is in close approximation to the Cornell Dubilier Site to inspect PCB-contaminated capacitors that he had found (see Attachment A-3). Spiegel indicated that the leaking capacitors he found in the swamp closely resembled the ones he found on the Cornell Dubilier Site prior to its fencing and Superfund designation. Mannino followed Spiegel to Woodbrook Road, but refused to go further into the swamp and did not inspect the dumping area. Spiegel generally discussed some of the issues he had submitted to Mannino and requested that Mannino respond to them in writing. Mannino agreed and stated he would send the EWA a copy of the off-site sampling report of the Mill Brook that traverses the Cornell Dubilier Site and the Administrative Consent order that the EPA issued for the Cornell Dubilier Site stabilization. Upon Mannino leaving, Spiegel contacted the New Jersey Department of Environmental Protection (NJDEP) and Middlesex County Hazardous Material Unit about the capacitors (see Attachments C-1 and C-2).

Spiegel then went to New Market Pond and observed that the "Fishing Advisory" signs had been removed. He also observed several fishermen at the pond. Spiegel discussed the advisory with the gentlemen and was told that the Carp caught were being consumed and that they thought the pond was cleaned up since the signs were no longer posted.

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4.0 Conclusions

The parties responsible for the cleanup and stabilization of the Cornell Dubilier Superfund Site have not conducted the necessary work to stabilize the contaminants at the site. The EPA is responsible for current site conditions and must take additional measures to address the impacted areas. The EPA test results indicate that hazardous substances have and continue to migrate from the site in concentrations that may cause adverse health effects in humans and to the environment.

5.0 Recommendations

The following recommendations are a result of research and inspections by the Edison Wetlands Association at the Cornell Dubilier Site, the adjacent Bound Brook, upstream Dismal Swamp areas and down stream to the New Market Pond.

The EWA strongly recommends that the EPA:

- 1. Immediately mobilize its Emergency Removal Branch to remove the surface materials from the three areas of the currently delineated Cornell Dubilier site that contain PCB-contaminated materials (see Attachment A-2).
- 2. Install silt fencing around the perimeter of the site and funnel the surface water runoff through a series of successive check dams built with hay bails. This should include the maintaining of the bails, as they need to be replaced after successive rainfalls. As a result, the amount of contaminated runoff from the site into the Bound Brook that typically occurs after a rainfall would be reduced. (See Attachment A-3).
- 3. Designate the Dismal Swamp dumping area containing PCB-contaminated capacitors as an operable unit of the Cornell Dubilier site and immediately delineate the extent of soil, water, and biota impacts of this area (see Attachment A-4).
- 4. EWA recommends that the EPA investigates the area and conducts a removal action of the capacitors and surrounding soil.
- 5. Extend the fence line at the site to encompass the entire area along Spice Avenue (beyond the property owner boundary) until such time that EPA can sample the area and prove that contamination stops at the property line.
- 6. Conduct samplings for PCB's of the dredge piles that are present at the New Market Pond downstream from the Cornell Dubilier Site. EPA testing has shown that New Market Pond has been impacted and continues to be impacted from the Cornell Dubilier Site. The piles are located on New Market Road across from the driveway to the Pepsi-Cola Company. If sampling indicates contamination, EWA requests that the EPA dispose of the dredge piles properly.

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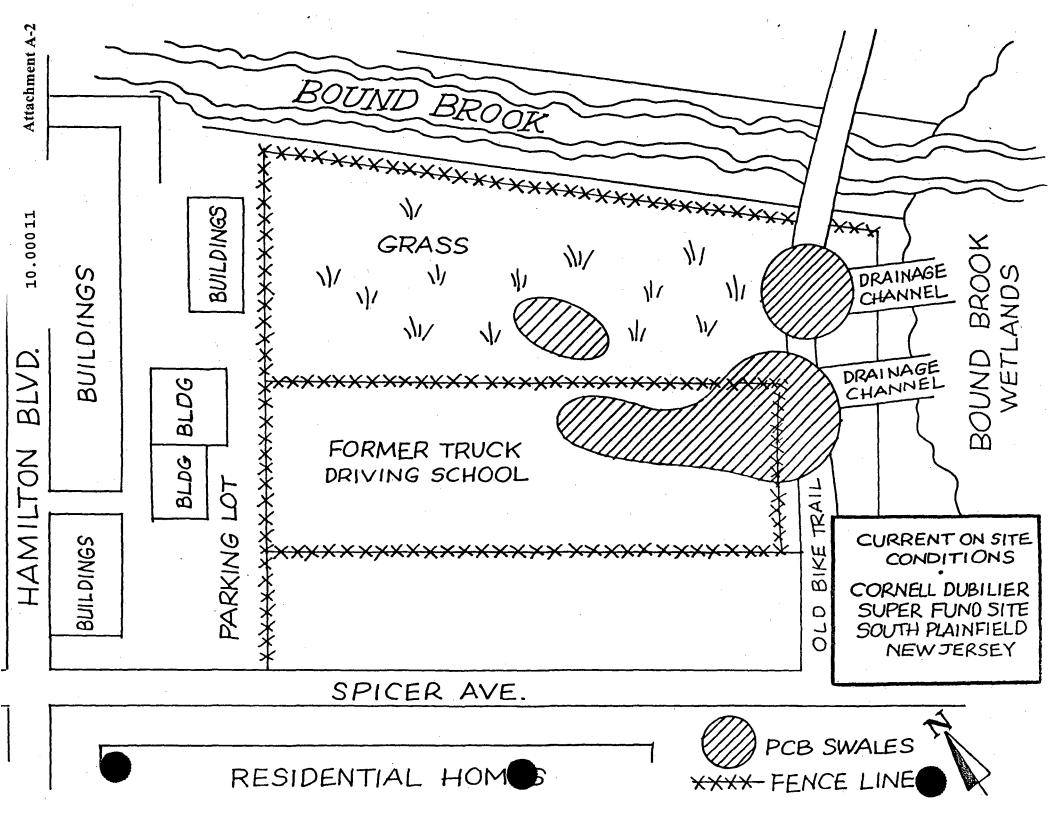
- 7. Determine the fate of dredge material previously taken from the New Market Pond. This dredge was purchased by Town and Country Landscaping of Somerset, NJ, and reportedly used as fill prior to home construction.
- 8. Implement hot-spot removal for PCB's in the Bound Brook above 25 PPM.
- 9. Install additional signs in the New Market Pond so that subsistence fisherman will be aware of contamination in the fish and pond.
- 10. Appropriate funding for an expedited on-site groundwater and soil investigation. The normal 5-year cleanup time frame cannot effectively address the wide spread contamination from the Cornell Dubilier site.
- 11. Hold a public forum to form a Citizen Advisory Group (CAG) at the site with the purpose of disseminating information to the public and getting imput from the residents impacted by the Cornell Dubilier Superfund Site. The EPA's mission recognizes the importance of community involvement in the Superfund process. Many residents and elected officials are not informed about the status of the cleanup at the Cornell Dubilier Superfund Site.

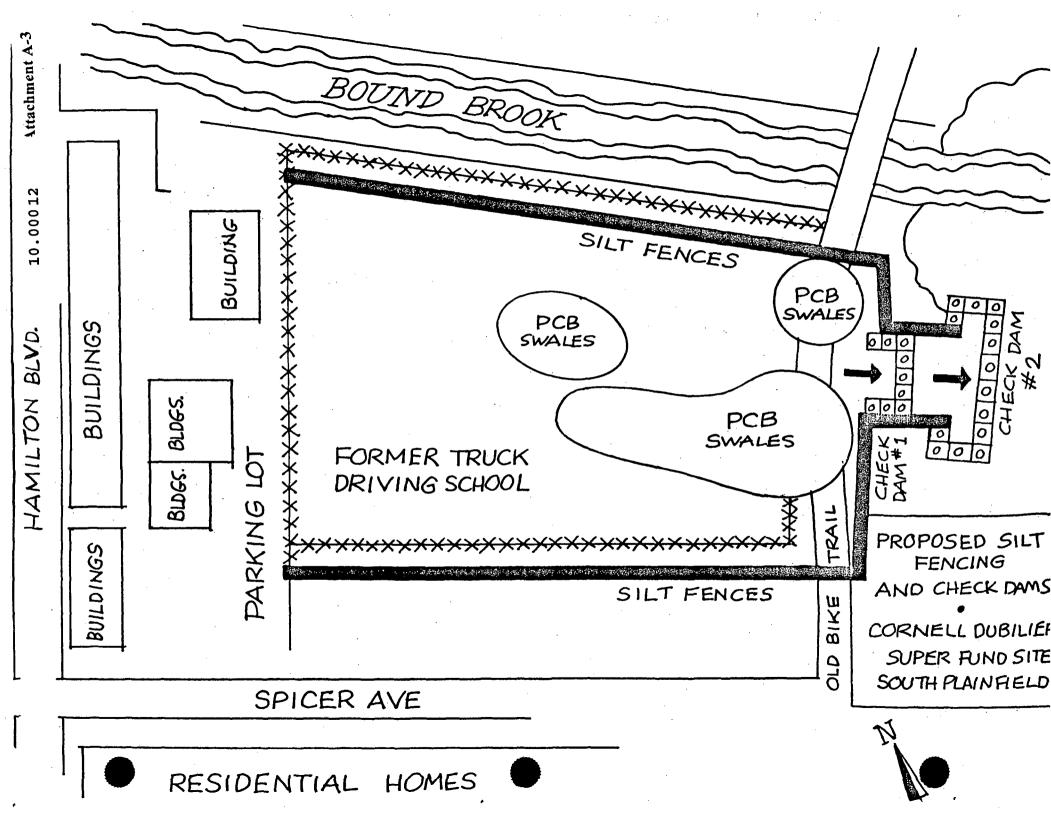
6.0 Distribution

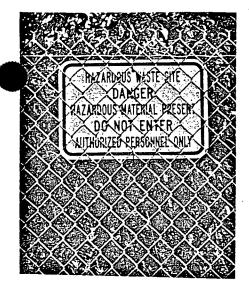
Senator Frank Lautenberg, with separate cover
Mayor Dan Gallagher, South Plainfield with separate cover
Mayor Helen Merolla, Piscataway with separate cover
Larry Randolph, South Plainfield Environment Commission with separate cover
Jim Eckert, South Plainfield Township Clerk with separate cover
Steve Luftig, US Environmental Protection Agency with separate cover
Jeanne Fox, US Environmental Protection Agency with separate cover
John Frisco, US Environmental Protection Agency with separate cover
Carol Peterson, US Environmental Protection Agency with separate cover
Peter Mannino, US Environmental Protection Agency with separate cover
Richard Gimello, NJ Department of Environmental Protection with separate cover
Fred Mumford, NJ Department of Environmental Protection with separate cover
Arthur Block, Agency for Toxic Substances and Disease Registry with separate cover
Gregory Ulirsch, Agency for Toxic Substances and Disease Registry with separate cover
James Pasqualo, NJ Department of Health and Senior Services with separate cover

Streets Plus

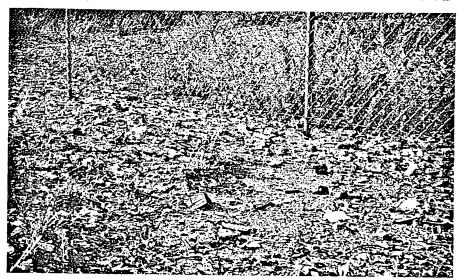
General Site Map Cornell-Dubilier Superfund Site Site Inspection Report



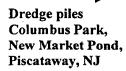


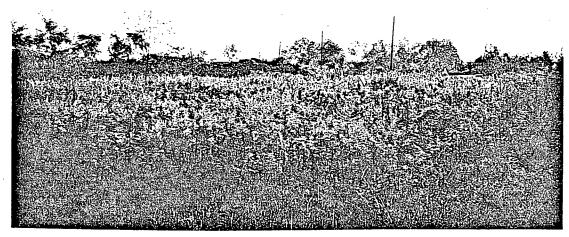


Warning sign at the Perimeter of the Cornell Dubilier Superfund Site.



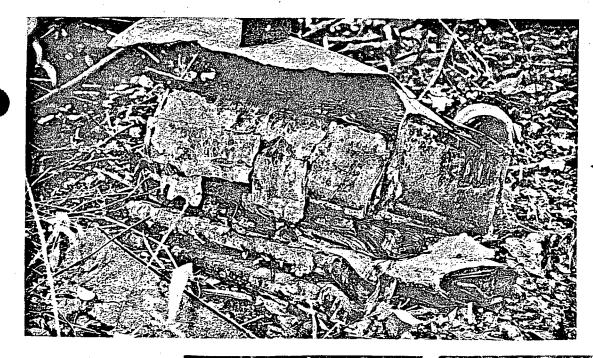
PCB Swales in a vacant lot at the Cornell Dubilier Superfund Site in Plainfield, New Jersey.



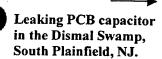


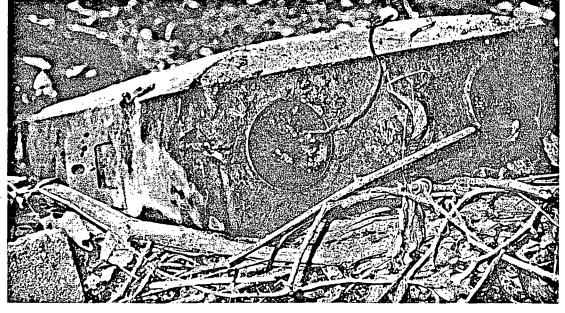


Close up of PCB contaminated materials at the Cornell Dubilic Superfund Site.



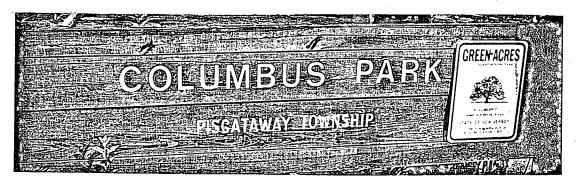
Leaking PCB capacitor in the Dismal Swamp, South Plainfield, NJ.

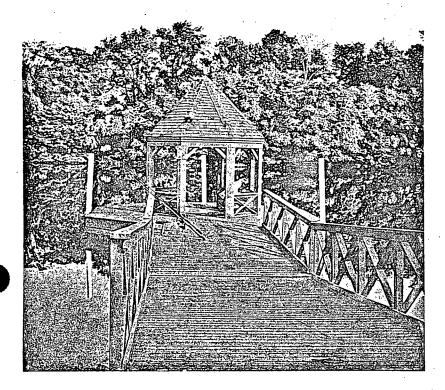




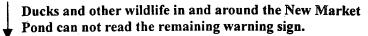


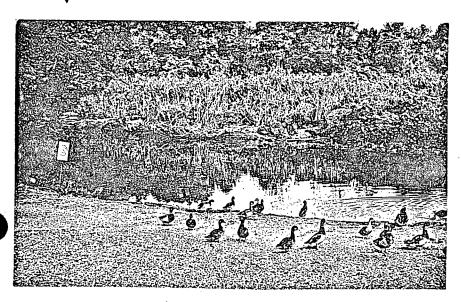
Leaking PCB capacitors in the Dismal Swamp, South Plainfield, NJ.

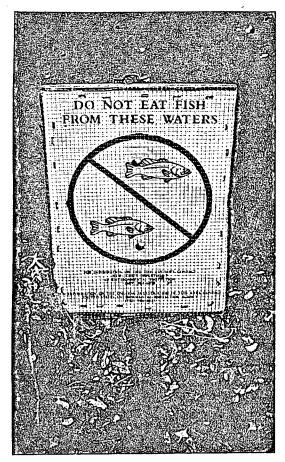




Subsistence fisherman at New Market Pond. *Note that there are no fish advisory signs in the area.







Last remaining advisory sign around New Market Pond. The sign is located in a remote area and does not appear near popular fishing locations.

Incident Reporting Form Edison Wetlands Association

EWA Recommendations:

- ♦ Follow up with Middlesex County Haz-mat on status of samples.
- ◆ Contact NJ DEP to have dumping area added to the list of known contaminated sites.
- ◆ Contact Borough of South Plainfield to inform them of site.
- ♦ Conduct further field investigations to determine if additional capacitors were disposed of in the surrounding area.

Prepared By:

Robert Spiegel, Executive Director Edison Wetlands Association

idua dee

Andrea Ace, Developmental Coordinator Edison wetlands Association

September 22, 1999

Incident Reporting Form Edison Wetlands Association

Type: Follow up

Date: Monday, September 13, 1999 Time: 1PM Weather: Sunny and Clear

Site Name: Dismal Swamp, PCB Dump

NJ DEP Case File Number: 99-09-09-1132-30

Site Location: Dismal Swamp, South Plainfield

*Videotape and photographs of inspection available upon request

Parties Present (include names, organizations and contact info):

Robert Spiegel, Edison Wetlands Association, (732) 661-9630 Joseph E. Hoyle, Jr. NJ DEP (609) 584-4136 Jack Ewski, Middlesex County Haz-Mat, (732) 727-6626 Bob Scully, Middlesex County Haz-Mat, (732) 727-6626

Reason for Inspection: To follow up on suspected illegal PCB capacitor dump in the Dismal Swamp.

Description of Inspection:

R. Spiegel met the Middlesex County Haz-Mat Unit at the Sunoco Service Station at the corner of Park Ave. and Stevenville Parkway in Edison, NJ at 1PM. We proceeded down Nevsky Street to New York Blvd. where we met up with Joseph Hoyle, Jr., an Emergency Response Specialist from the New Jersey Department of Environmental Protection. We proceeded down Woodbrook Road, a dirt road on the border of Edison and South Plainfield, and parked on the edge of the road.

We entered the site via a path used for off-road vehicles and began the visual inspection of the site. Haz-mat and DEP personnel counted the suspected capacitors many leaking and various stages decay with visible soil staining around the dump areas. The inspection team determined that at least 22 capacitors are on the surface, the intact units weighing about 30 pounds. Mr. Hoyle took a sample from the contents of one of the capacitors.

Upon closer survey of the area Mr. Scully found material with the name Cornell Dublier stamped on it.

After a brief reconnaissance of the area we departed and went back to our vehicles. Mr. Hoyle requested that I show him the Cornell Dublier site and we left the swamp and proceeded to the Cornell Dublier Site.

September 22, 1999

Incident Reporting Form Edison Wetlands Association

The New Jersey Department of Environmental Protection, Haz-Mat and the Edison Wetlands Association went to the Cornell Dublier Site in South Plainfield and R. Spiegel gave a brief overview of the site. Haz-Mat departed and R. Spiegel and J. Hoyle went to the South Plainfield Tax Assessors office to ascertain the legal owners of the dumpsite. The owner is Texas Eastern Terminal/ P.O Box 1642/ Houston, Texas. J. Hoyle said he was returning to the site to talk to the residents in the swamp and would start an investigation and let me know what the test results are for the sample he collected.

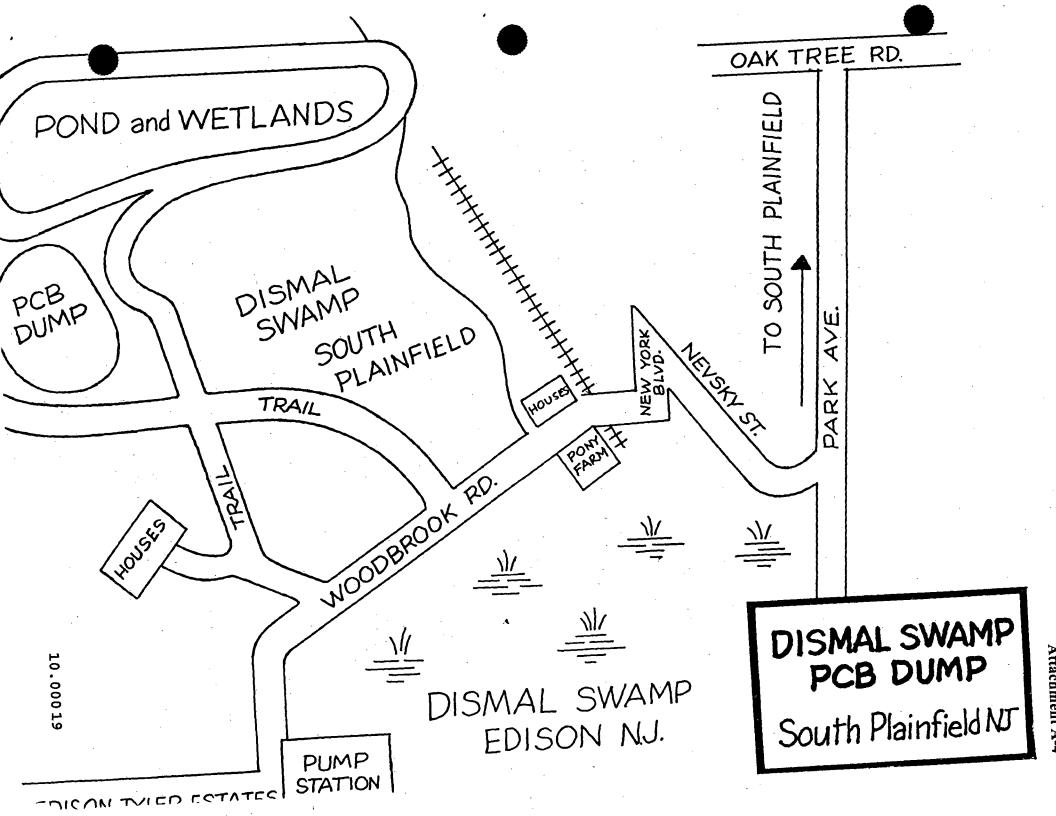
Follow up and recommendations:

- Upon DEP confirmation of PCB's at site, DEP and EPA should conduct a more detailed site inspection and determine who will be the lead agency and if there are any other responsible parties.
- Plan and implement a removal action at the site to remove the capacitors and contaminated soils from the site.
- Conduct additional samples of the soil, ground and surface water.
- Conduct fish and other biota sampling at the site.
- Take action with regards to any violations that may have occurred.

Prepared By:

Robert Spiegel, Edison Wetlands Association

Andrea Ace, Edison Wetlands Association



Incident Reporting Form Edison Wetlands Association

Type: Initial

Date: September 9, 1999 Time: afternoon Weather: sunny and mild

NJ DEP Case File Number: 99-09-09-1132-30

Site Name: Dismal Swamp, PCB Dump

Site Location: Dismal Swamp, New York Blvd., South Plainfield, NJ

Parties alerted or involved:

NJ DEP Main Number- 877 927 6337

• NJ DEP: Mr. Joseph Hoyle- 609-584-4130

• Middlesex County Haz-mat: Mr. Robert Scully- 732-727-6626

Reason for Inspection: Suspected PCB Capacitors found in Dismal Swamp

Description of Incident:

Mr. Spiegel, of the Edison Wetlands Association, identified 5 capacitors in the wooded wetlands in the Dismal Swamp in South Plainfield, NJ. Mr. Spiegel contacted the NJ DEP Hotline via Andrea Ace of the Edison Wetlands Association. The original report was given to Operator 24 of the NJ DEP. A report was filled out and routed to the Middlesex County Hazardous Materials Unit (Haz-mat) for further investigation. Mr. Spiegel met authorities from the Middlesex County Haz-mat at the corner Stephenville Pkwy. and Park Ave. intersection in Edison, NJ.

Upon further investigation, 18 capacitors were identified. Many of the capacitors were in various stages of decay and visible soil staining was present at the site. Due to the size and weight, they were not removed at that time. Middlesex County Hazmat removed materials from two of the capacitors for gross analysis to determine if PCB's were present.

Polychlorinated Biphenyls¹

HIGHLIGHTS: Polychlorinated biphenyls are a mixture of individual chemicals which are no longer produced in the United States, but are still found in the environment. Polychlorinated biphenyls can cause irritation of the nose and throat, and acne and rashes. They have been shown to cause cancer in animal studies. Polychlorinated biphenyls have been found in at least 383 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What are polychlorinated biphenyls?

Polychlorinated biphenyls (PCBs) are a group of manufactured organic chemicals that contain 209 individual chlorinated chemicals (known as congeners). PCBs are either oily liquids or solids and are colorless to light yellow in color. They have no known smell or taste. There are no known natural sources of PCBs. Some commercial PCB mixtures are known in the United States by their industrial trade name, Aroclor. PCBs don't burn easily and are good insulating material. They have been used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. The manufacture of PCBs stopped in the United States in 1977 because of evidence that they build up in the environment and cause harmful effects. Products containing PCBs are old fluorescent lighting fixtures, electrical appliances containing PCB capacitors, old microscope oil, and hydraulic fluids.

What happens to PCBs when they enter the environment?

- Before 1977, PCBs entered the air, water, and soil during their manufacture and use.
- Today, PCBs can be released into the environment from hazardous waste sites that contain PCBs, illegal or improper dumping of PCB wastes, and leaks from electrical transformers containing PCBs.
- PCBs may be carried long distances in the air; they remain in the air for approximately 10 days.
- In water, a small amount of the PCBs may remain dissolved, but most sticks to organic particles and sediments.
- PCBs in water build up in fish and marine mammals and can reach levels thousands of times higher than the levels in water.

How might I be exposed to PCBs?

- Eating food, including fish, meat and dairy products containing PCBs
- Breathing air near hazardous waste sites that contain PCBs
- Drinking PCB-contaminated well water
- Repairing or maintaining PCB transformers

How can PCBs affect my health?

Animal testing is sometimes necessary to find out how toxic substances might harm people or to treat those who have been exposed. Laws today protect the welfare of research animals and scientists must follow strict guidelines. People exposed to PCBs in the air for a long time have experienced irritation of the nose and lungs, and skin irritations, such as acne and rashes.

It is not known whether PCBs may cause birth defects or reproductive problems in people. Some studies have shown that babies born to women who consumed PCB-contaminated fish had problems with their nervous systems at birth. However, it is not known whether these problems were definitely due to PCBs or other chemicals. Animals that breathed very high levels of PCBs had liver and kidney damage, while animals that ate food with large amounts of PCBs had mild liver damage. Animals that ate food with smaller amounts of PCBs had liver, stomach, and thyroid gland injuries, and anemia, acne, and problems with their reproductive systems. Skin exposure to PCBs in animals resulted in liver, kidney, and skin damage.

The Department of Health and Human Services (DHHS) has determined that PCBs may reasonably be anticipated to be carcinogens.

¹ Summarized from the Agency for Toxic Substances and Disease Registry ToxFAQ's on PCB's

Lead¹

SUMMARY: Exposure to lead happens mostly from breathing workplace air or dust, and eating contaminated foods. Children can be exposed from eating lead-based paint chips, or playing in contaminated soil. Lead can damage the nervous system, kidneys, and the immune systems. Lead has been found in at least 922 of 1,300 National Priorities List sites identified by the Environmental Protection Agency.

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. It has no special taste or smell. Lead can be found in all parts of our environment. Most of it came from human activities like mining, manufacturing, and the burning of fossil fuels.

Lead has many different uses, most importantly in the production of batteries. Lead is also in ammunition, metal products (solder and pipes), roofing, and devices to shield x-rays.

Because of health concerns, lead from gasoline, paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years.

What happens to lead when it enters the environment?

- Lead itself does not break down, but lead compounds are changed by sunlight, air, and water.
- When released to the air from industry or burning of fossil fuels or waste, it stays in air about 10 days.
- Most of the lead in soil comes from particles falling out of the air.
- City soils also contain lead from landfills and leaded paint.
- Lead sticks to soil particles.
- It does not move from soil to underground water or drinking water unless the water is acidic or "soft".
- It stays a long time in both soil and water.

now might I be exposed to lead?

- Breathing workplace air (lead smelting, refining, and manufacturing industries)
- Eating lead-based paint chips
- Drinking water that comes from lead pipes or lead soldered fittings
- Breathing or ingesting contaminated soil, dust, air, or water near waste sites
- Breathing tobacco smoke
- Eating contaminated food grown on soil containing lead or food covered with lead-containing dust
- Breathing fumes or ingesting lead from hobbies that use lead (leaded-glass, ceramics)

How can lead affect my health?

Lead can affect almost every organ and system in your body. The most sensitive is the central nervous system, particularly in children. Lead also damages kidneys and the immune system. The effects are the same whether it is breathed or swallowed. Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common after exposure to high levels of lead.

In adults, lead may decrease reaction time, cause weakness in fingers, wrists, or ankles, and possibly affect the memory. Lead may cause anemia, a disorder of the blood. It can cause abortion and damage the male reproductive system. The connection between these effects and exposure to low levels of lead is uncertain.

How likely is lead to cause cancer? The Department of Health and Human Services (DHHS) has determined that lead acetate and lead phosphate may reasonably be anticipated to be carcinogens based on studies in animals. There is inadequate included the carcinogenicity in humans.

¹ Summarized from the Agency for Toxic Substances and Disease Registry ToxFAQ's on Lead.

Cadmium¹

SUMMARY: Exposure to cadmium happens mostly in the workplace where cadmium products are made. The general population is exposed from breathing cigarette smoke or eating cadmium contaminated foods. Cadmium damages the lungs, can cause kidney disease, and may irritate the digestive tract. Cadmium has been found in at least 388 of 1,300 National Priorities List sites identified by the Environmental Protection Agency.

What is cadmium?

Cadmium (pronounced cad' me-um) is a natural element in the earth's crust. It is usually found as a mineral combined with other elements such as oxygen (cadmium oxide), chlorine (cadmium chloride), or sulfur (cadmium sulfate, cadmium sulfide). It doesn't have a definite taste or odor. All soils and rocks, including coal and mineral fertilizers, have some cadmium in them. The cadmium that industry uses is extracted during the production of other metals like zinc, lead, and copper. Cadmium does not corrode easily and has many uses. In industry and consumer products, it is used for batteries, pigments, metal coatings, and plastics.

What happens to cadmium when it enters the environment?

- Cadmium enters air from mining, industry, and burning coal and household wastes.
- Cadmium particles in air can travel long distances before falling to the ground or water.
- It enters water and soil from waste disposal and spills or leaks at hazardous waste sites.
- It binds strongly to soil particles.
- Some cadmium dissolves in water.
- It doesn't break down in the environment, but can change forms.
- Fish, plants, and animals take up cadmium from the environment.
- Cadmium stays in the body a very long time and can build up from many years of exposure to low levels.

· How might I be exposed to cadmium?

- Breathing contaminated workplace air (battery manufacturing, metal soldering or welding)
- Breathing cadmium in cigarette smoke (doubles the average daily intake)
- Drinking contaminated water
- Breathing contaminated air near the burning of fossil fuels or municipal waste

How can cadmium affect my health?

Breathing high levels of cadmium severely damages the lungs and can cause death. Eating food or drinking water with very high levels severely irritates the stomach, leading to vomiting and diarrhea. Long term exposure to lower levels of cadmium in air, food, or water leads to a build up of cadmium in the kidneys and possible kidney disease. Other potential long term effects are lung damage and fragile bones. Animals given cadmium in food or water show high blood pressure, iron-poor blood, liver disease, and nerve or brain damage. We don't know if humans get any of these diseases from eating or drinking cadmium.

Skin contact with cadmium is not known to cause health effects in humans or animals.

How likely is cadmium to cause cancer? The Department of Health and Human Services (DHHS) has determined that cadmium and cadmium compounds may reasonably be anticipated to be carcinogens.

¹ Summarized from the Agency for Toxic Substances and Disease Registry ToxFAQ's on Cadmium.

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Edison Wetlands Association, Inc.

PMB 180.

1115 Inman Avenue Edison, NJ 08820-1132 Phone (732) 661-9630 Fax (732) 661-9640

E-mail Raritani@aol.com

List of Issues and Questions

The following is a list of issues and questions regarding the investigation and remediation of the Cornell Dublier Superfund Site, South Plainfield, NJ. A written response from the EPA is requested.

Site related Issues

- 1. EWA requests that EPA establish a Citizens Advisory Group (CAG) for the Cornell Dublier Superfund Site.
- 2. EWA requests that EPA investigates and removes material found upstream in the Dismal Swamp that appears to be site related.
- 3. EWA is concerned with off-site contamination and the pathway of exposure from fish consumption in Bound Brook and New Market pond.
- 4. EWA requests that EPA makes every effort to determine the fate of the contaminated dredge material taken from the New Market Pond. Materials taken from the pond were reportedly used as fill for home construction.
- 5. EWA requests that the EPA assigns this site as high priority and expedites the cleanup of the site. The timetable that EPA has established is unacceptable.

Site related questions

- 1. Has ATSDR conducted an updated health assessment on the exposure scenarios on this site?
- 2. Have the swales of PCB's and on-site soils been contained on the site?
- 3. Has EPA considered requesting that the Department of Health conduct health monitoring for residents around the site?
- 4. What air monitoring has EPA conducted to date at the sites?
- 5. What is the status of the Remedial Investigation / Feasibility Study for the site and the off-site areas?